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OBJECTIVES: To evaluate medical and pharmacy costs associated with breakthrough pain (BTP) in a commercially-insured population with chronic, cancer-related pain. **METHODS:** The National Breakthrough Pain Survey studied a large commercially-insured population using claims data and structured interviews to assess the prevalence, characteristics, and impact of BTP. Adult patients with ≥2 medical claims at an interval ≥3 months with an ICD-9-CM code indicating a chronic pain condition (cancer or noncancer) and ≥3 opioid prescription claims consistent with chronic use were eligible. Patients were called and interviewed after providing consent; those verifying cancer pain were included in this sub-analysis. All-cause medical and pharmacy costs in 2010 US dollars were determined from administrative claims data for the 12-month period before the survey date. Generalized linear models with gamma distribution were constructed because of the skewed nature of the cost data. **RESULTS:** A total of 2198 patients were interviewed, 1279 had controlled persistent pain, and 145 of the latter group had cancer pain. Of those with cancer pain, BTP was reported by 77.2% (BTP, 112; no BTP, 33). Mean (SD) total annual health care costs for patients with and without BTP were $84,049 ($129,279) and $77,926 ($98,785), respectively. Costs in patients with BTP were 28.6% higher than patients without BTP (*P*=0.3211) after controlling for health plan, patient demographics, comorbidities, history of prior surgery, neuropathic pain, baseline pain severity, treatment by a pain specialist, and patient-reported pain interference. Mean (SD) total annual pharmacy costs for patients with BTP were $20,088 ($35,406) versus $9,939 ($9,715) for patients without BTP. Patients with BTP had pharmacy costs that were 81.7% higher than patients without BTP (*P*=0.0265) after controlling for the above variables. **CONCLUSIONS:** In a commercially-insured population, cancer patients with controlled, persistent pain and BTP had higher total health care and pharmacy costs than cancer patients with controlled, persistent pain without BTP.

PSY27

COST SAVINGS ASSOCIATED WITH FASTER BLEEDING RESOLUTION IN THE INPATIENT TREATMENT OF HEMOPHILIA WITH INHIBITORS FOR THE UNITED STATES: RFVIIA VERSUS PD-APCC

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OBJECTIVES: In the United States (US), approximately 862 patients have haemophilia with inhibitors. Inpatient hospitalization is often required for treatment, which can lead to significant costs to hospitals, depending on the cause for hospitalization, and the associated length of stay and hospital resource use. Variations in inpatient costs may also depend on patient inhibitor status to Factor VIII and the need for treatment with Factor VIII bypassing agents. A US hospital-based economic model was developed to estimate inpatient costs for on-demand treatment of bleeds of hemophilia patients with inhibitors and to quantify potential cost savings. **METHODS:** An Excel-based model patterned the inpatient care associated with use of currently available bypassing agents: activated prothrombin complex concentrate (pd-aPCC) and recombinant Factor VIIa (rFVIIa) utilizing treatment-specific resource use, service and pharmacy costs, and source admission estimates based on a retrospective analysis of the Premier Perspective™ Database (1,218 inpatient stays with an ICD-9 diagnosis of hemophilia A identified from 2003-2008). **RESULTS:** Within the Premier analysis, from 2003-2008 there were 4,560 male inpatient discharges (unweighted) with a Hemophilia A diagnosis. Of these, 252 showed use of a bypassing agent after excluding patients with OR charges and patients with inpatient stays with charges for both rFVIIa and pd-aPCC. The final weighted sample sizes was 1,218 inpatient stays. In the base-case analysis, average per-patient costs associated with the inpatient treatment of hemophilia with inhibitors were slightly lower with rFVIIa as compared with pd-aPCC ($78,086 vs. $78,141). **CONCLUSIONS:** Fast bleed resolution may confer significant inpatient cost savings through reductions in length of stay and duration of bypass agent treatment. Thus, rFVIIa can reduce overall treatment costs and reduce indirect costs since fewer resources are required, which reduces the economic burden of haemophilia on society. More comparative studies of these agents for on-demand treatment in the inpatient setting are still needed.

PSY28

PARECOXIB VERSUS KETOPROPHENE, KETOROLAC, AND TENOXICAM IN ACUTE POST-SURGICAL PAIN MANAGEMENT: A COST-MINIMIZATION ANALYSIS FROM THE PRIVATE HOSPITAL PERSPECTIVE IN BRAZIL

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OBJECTIVES: Anti-inflammatory drugs are widely used in the post-operative analgesia. This study aims to compare acute post-surgical pain management costs and resource utilization with parecoxib versus ketoprophene, ketorolac, and tenoxicam from the perspective of Brazilian private hospitals. **METHODS:** A cost-minimization analysis was performed to compare intravenous parecoxib 40mg/day (PB), and parecoxib 40mg/day in bolus (PBbl) versus ketoprophene 100mg/day generic (KPg) and branded (KPb), ketorolac 30mg/day generic (KLg) and branded (KLb), and tenoxicam 40mg/day generic (TNg) and branded (TNb), in a 3-day hospital stay after an orthopedic surgery. Direct medical costs included drug acquisition, nursing fees to administration, infusion supplies, complications associated to treatment and adverse event management (constipation related to opioid rescue medication, antacid and antiemetic drugs, gastrointestinal and surgical-wound bleedings). Resource utilization was estimated through literature review and expert opinion. Unit costs were obtained from Brazilian official price lists (2012 USD values) for each cost component. **RESULTS:** PBbl was the least costly treatment, with overall costs per patient of 80.82USD, versus 117.92USD, 173.29USD, 182.56USD, 126.86USD, 133.39USD, 125.27USD, and 131.67USD, for PB, KPg, KPb, KLg, KLb, TNg, and TNb, respectively. Incremental costs of comparators driven by surgical wound and gastrointestinal bleeding was responsible for 38.99USD or 22.5%, 21.4%, 30.7%, 29.2%, 31.1%, and 29.6% with KPg, KPb, KLg, KLb, TNg, and TNb, respectively. No bleeding was reported for parecoxib. Adverse event management (antacid, antiemetic, constipation) was responsible for 6.37USD(7.9%), 6.37USD(5.4%), 11.34USD(6.5%), 11.34USD(6.2%), 13.31USD(10.5%), 13.31USD(10.0%), 8.74USD(7.0%), and 8.74USD(6.6%) with PBbl, PB ,KPg, KPb, KLg, KLb, TNg, and TNb, respectively. Drug acquisition, fees and supplies were responsible for 74.45USD(92.1%), 111.5USD(94.6%), 122.96USD(71.0%), 132.24USD(72.4%), 74.56USD(58.8%), 81.09USD(60.8%), 77.53USD(61.9%), and 83.93USD(63.7%) with PBbl, PB, KPg, KPb, KLg, KLb, TNg, and TNb, respectively. **CONCLUSIONS:** Parecoxib exhibited a cost-saving profile over branded or generic ketoprophene, ketorolac, and tenoxicam in post-surgical pain management, from the private hospital perspective in Brazil.

PSY29

POTENTIAL IMPACT OF IMMEDIATE RELEASE OPIOID ANALGESICS WITH TAMPER RESISTANT TECHNOLOGIES ON ABUSE TREATMENT AND DRUG ACQUISITION COSTS

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OBJECTIVES: Estimate the potential impact of opioid analgesics formulated with tamper resistant technologies (TRT) on drug acquisition and abuse treatment costs in a managed health plan through a budget impact model. **METHODS:** A model was developed to determine the impact of TRT therapy on opioid drug costs and abuse treatment costs for a hypothetical health plan of 1 million members. Claims analysis from the Thomson Reuters Commercial Encounters and Medicare Supplemental database was used to obtain the number of patients on low dose oxycodone therapy, annual days supply, prevalence of opioid abuse and annual abuse-related treatment costs. Patient willingness to continue TRT therapy was obtained from a clinical trial. Patients continuing TRT therapy were assumed to be non-abusers. Pricing assumptions were $2.67 (WAC) for a newly approved immediate release TRT and $0.16 for generic low dose oxycodone. A sensitivity analysis addressed the percentage of abusers placed on TRT therapy. **RESULTS:** Opioid abuse prevalence for patients on low dose oxycodone was 1.8%. Mean annual opioid abuse-related medical costs were $5,325. Mean annual days supply for patients with abuse claims was 169 days versus 40 days for patients with no claims. Thirty percent of patients were not willing to continue TRT therapy. With 20% of abuse patients placed on TRT therapy gradually over 24 months, WAC drug acquisition costs increased 0.6% ($221,697 vs. $217,321) for the plan, while abuse treatment costs decreased 1.8% ($500,993 vs. $510,280) and total drug and treatment costs decreased 0.7%. With all abuse patients placed on TRT therapy, while there was a 3% increase in drug costs, there was a 9.1% reduction in abuse treatment costs and a decrease in total drug and treatment costs of 3.4%. **CONCLUSIONS:** TRT for patients with history of opioid abuse can potentially result in savings in abuse treatment costs and overall cost reductions.

PSY30

PENICILLIN AND AMOXICILLIN PROPHYLAXIS IN CHILDREN WITH SICKLE CELL DISEASE (SCD): COMPLIANCE AND COST COMPARISON

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OBJECTIVES: To discuss the amoxicillin use as an alternative to penicillin and compare its cost for antibiotic prophylaxis in children with SCD. **METHODS:** We searched for evidences in MEDLINE (Pubmed) with the terms “Anemia, Sickle Cell”[Mesh] and “Antibiotic Prophylaxis”[Mesh]. In a deterministic fashion, adopting the Brazilian public health system perspective, we did a budget impact analysis comparing amoxicillin to penicillin. The target population was estimated from hidroxyurea consumption in children with SCD and acquisition costs, both obtained from Ministry of Health databases (2012 values; exchange rate: US$ 1 = R$ 2.04). Data about dosage according to age and bodyweight were extracted from literature. **RESULTS:** A systematic review supports the use of penicillin prophylaxis in children with SCD, based on 3 RCTs (OR: 0.37; CI 95%: 0.16 to 0.86), with no results for amoxicillin. Although, prospective studies show a low compliance of this approach (40 to 60%). Comparisons of amoxicillin to penicillin in other settings, as rheumatic fever prevention, demonstrate that once-daily oral amoxicillin is not inferior to twice-daily penicillin. We estimated a range of 143 to 325 children, less than 5 years old, with SCD as our target population. Assuming oral daily doses of 1500 mg (or 750 mg if bodyweight less than 30 kg) for amoxicillin and 500 mg (or 250 mg if bodyweight less than 20 kg) for penicillin, the annual acquisition costs of penicillin, oral solution, to treat this population can lead to expenses of US$ 41,161.93 to US$ 93,704.65. In contrast, expenses with amoxicillin, oral solution, would be a range of US$ 3,019.94 to US$ 6,863.49. **CONCLUSIONS:** As well as penicillin, amoxicillin seems to be a good option for preventing pneumococcal infection in children with SCD as its use could represent annual savings of US$ 38,141.99 to US$ 86,841.15 and the once-daily administration could improve the prophylaxis compliance.